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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
REDDY, KARUNA P	

ART UNIT	PAPER NUMBER
1713	

NOTIFICATION DATE	DELIVERY MODE
05/23/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/579,096

Applicant(s)

KIRSCH ET AL.

Examiner

Karuna P. Reddy

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/10/2006</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

1. It is noted that applicant did not provide an English translation of the foreign priority application (Germany 10353201.3).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-13, 15-18, 20-21 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Wood (US 5, 286, 843) as evidenced by Pastorino et al (US 4, 940, 732).

Wood discloses a process for improving water whitening resistance of a pressure sensitive adhesive containing an aqueous latex emulsion and water soluble ions by removing the water soluble ions. The preferred method of removing the water soluble ions is to contact either the aqueous latex emulsion, the formulated PSA containing the aqueous latex emulsion or both with ion exchange resin (abstract). The removal of water soluble ionic compounds in the dispersion can be accomplished by dialysis, deionization with ion exchange resin to increase the water resistance (column 1, lines 66-68, column 2, line 1).

The aqueous latex polymer may be formed from any monomer or mixture of monomers which yield a water soluble latex, film forming polymer. See

example 1 for the weight percentages of alkyl acrylates in claim 3; 0.3 g Emcol® 4500¹ surfactant which reads on salt of the dialkyl ester of a sulfonated dicarboxylic acid of claims 1 and 7-9; Drew® T-4201 defoamer which reads on the at least one additive of claim 11. The term "latex" refers to a water soluble polymer which may be prepared by conventional polymer techniques such as emulsion polymerization (column 3, lines 18-21). The removal of water-soluble ions from the aqueous latex polymer emulsion or PSA is critical to the operation (column 3, lines 61-63) is interpreted as 100% removal and reads on the at least 50% of claim 1 and at least 90% of claim 5. The PSA is used to adhere clear labels and decals to surfaces (column 3, lines 1-2). See example 4 wherein the PSA formulation is direct coated onto Mylar® film.

Therefore, Wood anticipates instant invention.

4. Claims 1-13, 15-18, 20-21 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Wood (US 5, 536, 811) as evidenced by Pastorino et al (US 4, 940, 732).

Wood discloses a process for improving water whitening resistance of a pressure sensitive adhesive containing an aqueous latex emulsion and water soluble ions by removing the water soluble ions. The preferred method of removing the water soluble ions is to contact either the aqueous latex emulsion, the formulated PSA containing the aqueous latex emulsion or both with ion exchange resin (abstract). The removal of water soluble ionic compounds in the

¹ See Pastorino et al (US 4, 940, 732) for the chemical name of Emcol® 4500 i.e. Sodium dioctyl sulfosuccinate (column 4, lines 5-6).

dispersion can be accomplished by dialysis, deionization with ion exchange resin to increase the water resistance (column 3, lines 66-67).

The aqueous latex polymers are prepared by emulsion polymerization. The aqueous latex polymer may be formed from any monomer or mixture of monomers which yield a water soluble latex, film forming polymer (column 3, lines 24-29). See example 1 for the weight percentages of alkyl acrylates in claim 3; 0.3 g Emcol® 4500² surfactant which reads on salt of the dialkyl ester of a sulfonated dicarboxylic acid of claims 1 and 7-9; Drew® T-4201 defoamer which reads on the at least one additive of claim 11. The removal of water-soluble ions from the aqueous latex polymer emulsion or PSA is critical to the operation (column 3, lines 62-64) is interpreted as 100% removal and reads on the at least 50% of claim 1 and at least 90% of claim 5. The PSA is used to adhere clear labels and decals to surfaces (column 3, lines 1-2). The PSA formulation is direct coated onto Mylar® film (see example 4).

Therefore, Wood anticipates instant invention.

Claim Rejections - 35 USC § 102/103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

² See Pastorino et al (US 4, 940, 732) for the chemical name of Emcol® 4500 i.e. Sodium dioctyl sulfosuccinate (column 4, lines 5-6).

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 10-20 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Foreman et al (WO 02/10306 A2).

Foreman et al teach a pressure sensitive adhesive composition comprising emulsion polymer that exhibits high resistance to water and humidity (abstract). A particularly preferred surfactant for use in emulsion polymerization comprises about 0.5 to 1.5 % by weight of a sodium dialkyl sulfosuccinate wherein the alkyl group may have 1 to 18 carbon atoms (page 10, lines 25-26; page 11, lines 5-6). Other additives well known in the art, for example wetting agents, thickeners may be added as appropriate for specific application (page 13, lines 1-4).

The prior art differs from instant invention in the method of preparing polymer emulsion.

However, it is held that even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or

obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” See *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) and *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983).

Even if properties of the polymer dispersion of instant claims and prior art examples are not the same, it would still have been obvious to one of ordinary skill in the art to make polymer dispersion having the claimed properties because it appears that the references generically embrace the claimed polymer dispersion and the person of ordinary skill in the art would have expected all embodiments of the reference to work. Applicants have not demonstrated that the differences, if any, between the claimed polymer dispersion and the polymer dispersion of prior art give rise to unexpected results.

As to the method of binding substrates using the adhesive, the PSA's of the prior art have excellent adhesion to a wide variety of surfaces including nonpolar relatively low energy surfaces such as polyvinyl chloride (page 4, lines 18-22) and reads on the application of adhesive to PVC film of claims 14 and 19. The PSA's are useful in a wide range of applications including tapes, stickers, labels, decals (page 13, lines 9-12) and in adhesive construction including label facestock and release liner (page 13, lines 25-26) which reads on bonding of two substrates using adhesive in claims 12-13, 17-19 and article comprising the adhesive in claims 15 and 20.

Claim Rejections - 35 USC § 103

8. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wood (US 5, 286, 843) or Wood (US 5, 536, 811) individually, in view of Nakabayashi et al (US 3, 964, 955).

The discussion with respect to Wood (US 5, 286, 843) and Wood (US 5, 536, 811) in paragraphs 2 and 3 respectively is incorporated herein by reference.

The prior art is silent with respect to removal of at least one ionic compound by diafiltration.

However, Nakabayashi et al teach a method of removing metal ions from the dispersing medium of an emulsion by diafiltration or dialysis method (column 10, lines 41-43). Therefore, it would have been obvious to one skilled in the art at the time invention was made to use the diafiltration method to remove ionic compounds from the emulsion polymer dispersion of Wood because Nakabayashi et al has proven successfully the removal of ionic components such as metal ions by diafiltration or dialysis method and one of ordinary skill in the art would expect the diafiltration method to work for the removal of water soluble ionic components in emulsion polymer dispersion of Wood, motivated by expectation of success.

Conclusion

The "X" reference from the international search report has been considered and used in an anticipatory rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karuna P. Reddy whose telephone number is (571) 272-6566.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Karuna P Reddy
Examiner
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